

Karner Blue Butterfly Habitat Conservation Plan

Participation Information for Corridor Managers

The Karner blue butterfly was listed as an endangered species by the federal government in 1992. Under the U.S. Endangered Species Act (ESA), to “take” (kill, harm, harass or collect) an endangered species without a permit is illegal, whether the take is intentional or incidental to another activity. The U.S. Fish and Wildlife Service (FWS) can impose heavy fines for ESA violations.

Many land management practices employed before the Karner blue listing in 1992 are now considered illegal because they result in harm to the butterfly or its habitat. Mowing, herbicide use and other right-of-way maintenance activities in areas containing Karner blues are examples of actions that can result in incidental take. In cases where incidental take is unavoidable, the land manager must acquire an *incidental take permit* to comply with federal law. The land manager can acquire this permit by applying directly to the FWS, or by joining the Wisconsin Department of Natural Resources as a partner in the statewide Karner Blue Butterfly Habitat Conservation Plan.

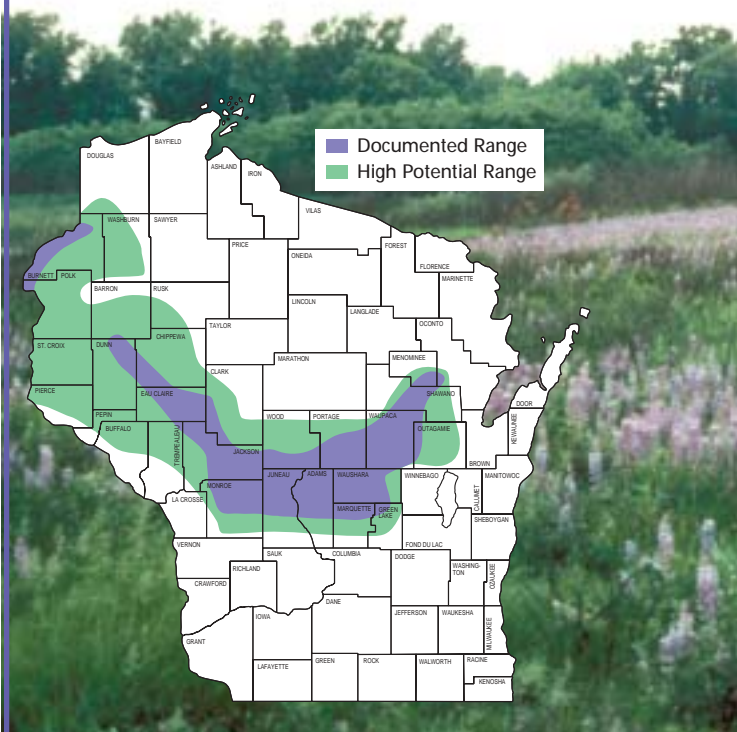
Karner Blue and Habitat Identification

In Wisconsin, the Karner blue butterfly usually occupies open prairies and recently cleared areas containing a plant called the wild lupine. This plant is widespread in Wisconsin’s Central and Northwest Sands and other areas where sandy soils are common (see map). The pale green caterpillar of the Karner blue butterfly feeds exclusively on the leaves of the wild lupine. Areas without wild lupine nearby generally do not support Karner blue populations.

In Wisconsin, wild lupine germinates in mid-April, its spikes of blue flowers bloom by mid to late May, and its seed pods mature to brown or black before bursting in late June or early July.



About the size of a postage stamp, adult Karner blues can be identified by the bands of orange spots on the underside edge of their wings. The wing topsides of male butterflies are deep sky blue, while those of the female are darker blue and brown with orange spots on the edges of both hind wings (see below).



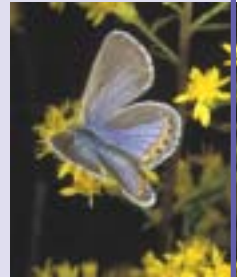
Life Cycle of the Karner Blue

Karner blue butterflies produce two short-lived generations each year, one in the spring and one in the summer. The eggs laid by the second generation overwinter on or near wild lupine plants before hatching the following April to produce the first caterpillars of the year.

The caterpillars feed on wild lupine leaves for several weeks, often accompanied by ants that protect the caterpillars and collect a sugary solution secreted by the caterpillars' bodies. Near the end of May, the caterpillars attach themselves to a firm surface and pupate. In early June, adult butterflies emerge from the pupal stage and begin to feed on the nectar of wildflowers.

Shortly after emerging, the adult butterflies lay eggs on or near wild lupine to produce a second generation. The second generation of eggs hatches quickly and develops into adulthood by mid-July. The adults of the second generation lay eggs for the following year by mid-August.

Karner blue butterflies do not migrate like monarch butterflies. They remain in Wisconsin throughout the year, in one life stage or another.



Options for Land Managers

Land management in areas where Karner blues are found must either: 1) *avoid take* of the Karner blue, including all of its life stages (no permit required) or 2) *minimize take* and promote Karner blue habitat (permit required).

If you manage land where Karner blues are found and wish to *avoid take*, the U.S. Fish and Wildlife Service (FWS) suggests that you follow one or more of the following guidelines (using 6" or higher blade height):

- A. Do not mow or brush or apply herbicide on Karner blue-occupied habitat.
- B. Mow in the winter over frozen ground.
- C. Use a side-mounted mower operated from outside the habitat area before mid-April or after August.
- D. For small areas, cut vegetation by hand or use a hand-held string trimmer, avoiding lupine plants.

If you manage land where Karner blues are found and cannot avoid take, you must first apply for an incidental take permit from the FWS. You can apply for the permit directly, or you can apply to the Wisconsin Department of Natural Resources (DNR) for partnership in the statewide Karner Blue Butterfly Habitat Conservation Plan (HCP). HCP partners are covered under a statewide incidental take permit and can continue their land management activities with certain modifications.

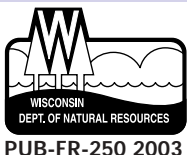
Thirty major landowners and land managers have joined the HCP as partners. Participation in the HCP is the quickest, easiest and least expensive way to continue your land management, conserve the Karner blue, and comply with the law.

If you are interested in joining the HCP, the DNR will send you information on what is required of HCP partners, how to apply for permit inclusion, and how you would be expected to modify your management activities to *minimize take* of Karner blues in your area. In many cases, practices recommended for *minimizing take* require only slight modifications to your existing land management.

We hope that you consider joining us in the HCP and conserving the Karner blue butterfly.

For more information about Endangered Species Act listing, or to apply for an incidental take permit on your own, please contact Cathy Carnes of the FWS: 920-866-1732 (phone) or cathy_carnes@fws.gov (email).

For more information about the statewide Karner Blue Butterfly HCP, or to apply for HCP partnership, please contact Dave Lentz at the DNR: 608-261-6451 (phone) or David.Lentz@dnr.state.wi.us (email).



The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of the Interior, Washington, D.C. 20240.

This publication is available in alternate format (large print, Braille, audio tape, etc.) upon request. Please call 608-267-7494 for more information.